1. (Currently Amended) A ~~mechanized~~ conditioning system for sterilizing products comprising:

a product conditioning unit including of a tunnel having one or more sidewalls, an entrance and an exit, said tunnel subdivided into ~~a plurality of~~ one or more consecutively aligned stages ~~including at least a heating stage and a cooling stage~~;

~~a pressurizing means for controlling the pressure of at least one of said stages;~~

a plurality of pressure sealing doors to seal at least one stage ~~and separate at least one stage from an adjacent stage~~ to form a pressurizeable stage;

a pressurizing means for controlling the pressure of said pressurizeable stage;

a heating means for providing heating in at least ~~one~~ said pressurizeable stage of the conditioning unit, said heating means including a series of magnetrons for creating a microwave field for heating products;

a conveyor for transporting products from upline to downline through said conditioning unit;

said conveyor means including a motor positioned exterior of said ~~tunnel~~ pressurizeable stage, a plurality of wheels located within said ~~tunnel~~ pressurizeable stage, a plurality of shafts mechanically connected to said motor and said wheels, said shafts projecting through holes formed in said ~~tunnel~~ pressurizeable stage sidewalls to engage said wheels, activation of said motor causing corresponding rotation of said shafts and said wheels.

2. (Original) The conditioning system for sterilizing products of claim 1 wherein said conveyor does not include a conveyor belt or rollers projecting laterally across the interior of said tunnel.

3. (Original) The conditioning system for sterilizing products of claim 2 wherein said tunnel includes at least four stages including a preheating stage, a heating stage, a holding stage and a cooling stage, each of said stages including a plurality of wheels located within said stages, said wheels connected to said motor by shafts which project through holes formed in said tunnel sidewalls of said stages.

4. (Currently Amended) A conditioning system for sterilizing products comprising:

a product conditioning unit including of a tunnel having parallel top wall and bottom wall, parallel sidewalls, and an entrance and an exit to form a conduit having a substantially quadrilateral cross-section, said tunnel subdivided into ~~a plurality of~~ one or more consecutively aligned stages ~~including at least a heating stage and a cooling stage~~;

~~a pressurizing means for controlling the pressure of at least one of said stages;~~

a plurality of pressure sealing doors to seal at least one stage ~~and separate at least one stage from an adjacent stage~~ to form a pressurizeable stage;

a pressurizing means for controlling the pressure of said pressurizeable stage;

a heating means for providing heating in at least ~~one~~ said pressurizeable stage of the conditioning unit, said heating means including a series of magnetrons for creating a microwave field for heating products; and

a conveyor for transporting products from upline to downline through said conditioning unit.

5. (Original) The conditioning system for sterilizing products of claim 4 wherein each of said stages has opposing parallel top and bottom walls and opposing parallel sidewalls so that said tunnel has a substantially rectangular cross section.

6. (Original) The conditioning system for sterilizing products of claim 5 wherein said tunnel includes at least four stages including a preheating stage, a heating stage, a holding stage and a cooling stage.

7. (Currently Amended) A conditioning system for sterilizing products comprising:

a product conditioning unit including of a tunnel having one or more sidewalls, an entrance and an exit, said tunnel subdivided into ~~a plurality of~~ one or more consecutively aligned stages ~~including at least a heating stage and a cooling stage~~;

~~a pressurizing means for controlling the pressure of at least one of said stages;~~

a plurality of pressure sealing doors to seal at least one stage ~~and separate at least one stage from an adjacent stage~~ to form a pressurizeable stage;

a pressurizing means for controlling the pressure of said pressurizeable stage;

a heating means for providing heating in at least ~~one~~ said pressurizeable stage of the conditioning unit, said heating means including a series of magnetrons for creating a microwave field for heating products;

a conveyor for transporting products from upline to downline through said conditioning unit;

a source of cleaning fluid; and

said ~~tunnel~~ pressurizeable stage including at least one inlet projecting through one of said sidewalls and an outlet projecting through one of said sidewalls, said inlet connected to ~~a pressurized~~ said source of cleaning fluid for introducing cleaning fluid from the exterior of said ~~tunnel~~ pressurizeable stage into the interior of said ~~tunnel~~ pressurizeable stage, said outlet allowing cleaning fluid to drain from said ~~tunnel~~ pressurizeable stage.

8. (Original) The conditioning system for sterilizing products of claim 7 wherein each of said stages has opposing parallel top and bottom walls and opposing parallel sidewalls so that said tunnel has a substantially rectangular cross section.

9. (Original) The conditioning system for sterilizing products of claim 8 wherein said tunnel includes at least four stages including a preheating stage, a heating stage, a holding stage and a cooling stage.

10. (Original) The conditioning system for sterilizing products of claim 9 wherein each stage includes an inlet for introducing cleaning fluid from the exterior of said tunnel into the interior of said stage and an outlet allowing cleaning fluid to drain from said stage.

11. (Currently Amended) A conditioning system for sterilizing products comprising:

a product conditioning unit including of a tunnel having one or more sidewalls, an entrance and an exit, said tunnel subdivided into ~~a plurality of~~ one or more consecutively aligned stages ~~including at least a heating stage and a cooling stage~~;

~~a pressurizing means for controlling the pressure of at least one of said stages;~~

a plurality of pressure sealing doors to seal at least one stage ~~and separate at least one stage from an adjacent stage~~ to form a pressurizeable stage;

a pressurizing means for controlling the pressure of said pressurizeable stage;

a heating means for providing heating in at least ~~one~~ said pressurizeable stage of the conditioning unit, said heating means including a series of magnetrons for creating a microwave field for heating products;

a conveyor for transporting products from upline to downline through said conditioning unit, or from downline to upline through said conditioning unit;

a temperature sensor for measuring the temperature of products traveling through said tunnel; and

a controller connected to said conveyor and said temperature sensor; said controller controlling said conveyor to automatically move products upline or downline depending on temperature measurements of the products within the tunnel.

12. (Original) The conditioning system for sterilizing products of claim11 wherein each of said stages has opposing parallel top and bottom walls and opposing parallel sidewalls so that said tunnel has a substantially rectangular cross section.

13. (Original) The conditioning system for sterilizing products of claim 12 wherein said tunnel includes at least four stages including a preheating stage, a heating stage, a holding stage and a cooling stage.

14. (Original) The conditioning system for sterilizing products of claim 13 wherein each stage includes an inlet for introducing cleaning fluid from the exterior of said tunnel into the interior of said stage and an outlet allowing cleaning fluid to drain from said stage.

15. (Currently Amended) A conditioning system for sterilizing products comprising:

a product conditioning unit including of a tunnel having one or more sidewalls, an entrance and an exit, said tunnel subdivided into ~~a plurality of~~ one or more consecutively aligned stages ~~including at least a heating stage and a cooling stage~~;

~~a pressurizing means for controlling the pressure of at least one of said stages;~~

a plurality of pressure sealing doors to seal at least one stage ~~and separate at least one stage from an adjacent stage~~ to form a pressurizeable stage;

a pressurizing means for controlling the pressure of said pressurizeable stage;

a heating means for providing heating in at least ~~one~~ said pressurizeable stage of the conditioning unit, said heating means including a series of magnetrons for creating a microwave field for heating products;

a conveyor for transporting products from upline to downline through said conditioning unit;

a temperature sensor for measuring the temperature of products traveling through said tunnel; and

a controller connected to said heating means and said temperature sensor; said controller controlling said magnetrons to automatically move ~~alter~~ said microwave field within said stage depending on temperature measurements of the products within the tunnel.

16. (Original) The conditioning system for sterilizing products of claim 15 wherein said magnetrons produce a controllably moveable microwave field and said controller controlling said magnetrons to move said microwave field within said stage depending on temperature measurements of the products within the tunnel.

17. (Original) The conditioning system for sterilizing products of claim 15 wherein said conveyor moves said products upline to downline or downline to upline through said tunnel and said conveyor is connected to said controller, said controller controlling said conveyor to move products upline or downline depending on temperature measurements of the products within the tunnel.

18. (Original) The conditioning system for sterilizing products of claim 16 wherein said tunnel includes at least four stages including a preheating stage, a heating stage, a holding stage and a cooling stage.

19. (Original) The conditioning system for sterilizing products of claim 16 wherein each of said stages has opposing parallel top and bottom walls and opposing parallel sidewalls so that said tunnel has a substantially rectangular cross section.

20. (Original) The conditioning system for sterilizing products of claim 15 wherein each stage includes an inlet for introducing cleaning fluid from the exterior of said tunnel into the interior of said stage and an outlet allowing cleaning fluid to drain from said stage.